

## CLAIMS

1. A semiconductor laser apparatus, comprising:
  - a semiconductor laser array;
  - a heat sink on which said semiconductor laser array is mounted;
  - 5 a refrigerant including fluorocarbon and flowing inside said heat sink;
  - a refrigerant supplier for supplying the refrigerant to said heat sink;
  - an insulating piping connected between said heat sink and said
  - 10 refrigerant supplier, and flowing the refrigerant inside said piping; and
  - a conductive material arranged in said insulating piping in a grounded state.
2. A semiconductor laser apparatus according to claim 1, wherein said conductive material has a mesh structure covering the
- 15 cross-section of the flow path within said insulating piping.
3. A semiconductor laser apparatus according to claim 1 or 2, wherein the cross-section of said conductive material in parallel to the streamline of the refrigerant includes a portion with a streamline shape.
4. A semiconductor laser apparatus according to any one of
- 20 claims 1 to 3, wherein said insulating piping includes an expanded diameter portion having a locally expanded inner diameter, and said conductive material is arranged at said expanded diameter portion.
5. A semiconductor laser apparatus according to any one of
- claims 1 to 4, wherein said semiconductor laser array has a plate shape,
- 25 and said heat sink also has a plate shape, and said semiconductor laser unit is constructed by said semiconductor laser array and said heat sink.

6. A semiconductor laser apparatus, comprising:

a plurality of semiconductor laser units each having the same structure as that in a semiconductor laser apparatus according to claim 5,

5 wherein said plurality of semiconductor laser units are stacked such that said semiconductor laser units and heat sinks are alternately arranged to each other.